

Memorandum of Understanding

Coordination at the Boeing and EMJ/Jorgensen Transition Zone Boundary Sediment Cleanup Areas; Lower Duwamish Waterway

June 2007

PARTIES

This Memorandum of Understanding (MOU) is entered by and among the following signatories to the MOU:

- The Boeing Company (Boeing)
- Earle M. Jorgensen Company (EMJ)
- Jorgensen Forge Corporation (Jorgensen)

The above signatories as a whole are herein referred to as the "Parties". EMJ and Jorgensen are referred to herein as "EMJ/Jorgensen."

PURPOSE

The purpose of this MOU is to provide an attachment to separate Administrative Orders on Consent issued to the Parties by the U.S. Environmental Protection Agency (EPA) for the coordination and cooperation of the Parties in the cleanup of certain sediments and the associated sediment-shoreline bank interface areas in the Lower Duwamish Waterway (LDW). The cleanup areas are located adjacent to the Boeing Plant 2 Facility and the Jorgensen Facility (Figure 1). The sediment cleanup consists of Resource Conservation and Recovery Act (RCRA) corrective action by Boeing and Comprehensive Environmental Response Compensation and Liability Act (CERCLA) response action by EMJ/Jorgensen pursuant to the above-referenced EPA orders. This MOU defines the required coordination and cooperation between the Parties to plan and implement their respective cleanup actions, most particularly within the Transition Zone (described below). Key tasks include:

- Schedule
- Cleanup Action Design
- Bidding Process and Contractor Selection
- Permitting
- Construction Methods and Controls

- Source Control Implementation
- Monitoring (Construction and Long Term)
- Public Participation Process
- Agency Coordination Process
- Cleanup implementation

CLEANUP BOUNDARY DETERMINATION

The Parties agree to the location of the Boeing and EMJ/Jorgensen Cleanup Boundary (Boundary) within the Transition Zone shown on Figure 1. As detailed herein, and solely for purposes of this MOU and implementation of the above-referenced EPA orders, Boeing shall undertake the cleanup of the specified sediment area north of the Boundary and EMJ/Jorgensen shall undertake the cleanup of the specified sediment area south of the Boundary. Neither this Boundary nor this MOU constitutes an admission of liability or a final allocation of responsibility between or among the Parties or any other person or entity with respect to sediment investigation or cleanup costs. The parties reserve all of their rights, including those under statute, common law, contract, and otherwise, to seek a reallocation of responsibility for the costs of investigating and cleaning up sediment contamination addressed in this MOU.

For the purposes of this MOU, the shoreline bank is defined as the material residing above the toe of the slope. The Parties shall each properly handle, dispose, and replace any shoreline bank materials at the sediment-bank interface incidentally affected by their respective sediment remedies.

The parties shall coordinate detailed features and requirements (e.g. slope stability and dredge depths) at the sediment and shoreline bank interfaces.

SELECTION OF AN EPA-APPROVED REMEDY AND PUBLIC REVIEW

The Parties shall communicate on a regular basis, and as may be directed by EPA, but no less than quarterly, throughout the development of their respective cleanup alternatives analyses to coordinate the key elements of pre-remedy selection and post-remedy selection design and implementation processes. The coordination will extend through permitting, bidding, selection

of contractors, construction, source control, and monitoring. The tasks to be coordinated include:

1. Schedule
2. Cleanup Action Design
3. Bidding Process and Contractor Selection
4. Permitting
5. Construction Methods and Controls
6. Source Control Implementation
7. Monitoring (Construction and Long Term)
8. Public Participation Process
9. Agency Coordination Process
10. Cleanup implementation

Any Party may proceed with their work in the absence of timely communication and coordination or progress by another Party, unless otherwise directed by EPA. A determination by any Party of a failure by another Party to act in a timely manner, and the basis for that determination, will be documented in correspondence between the Parties first, and if necessary with EPA.

Schedule

The Parties will prepare comprehensive and coordinated schedules that will be included in their respective alternative analyses, cleanup design and construction documents. The schedules will be managed so that the respective portions of both projects within the Transition Zone that could benefit from coordinated activities are constructed within the same construction window(s), to the extent this is technically feasible. Any determination by any Party that this is not technically feasible must be approved by EPA in writing. EPA's approval of the Parties' determination that the schedules cannot be coordinated will not be unreasonably withheld. These activities include, at a minimum, Agency approvals and oversight, permitting, contract administration, mobilization, dredging, monitoring, equipment staging and demobilization. Construction sequencing for the Boeing and EMJ/Jorgensen cleanup areas will be planned to limit dredge residuals and the potential for recontamination due to construction-related activities in either cleanup area.

Cleanup Action Design

The Parties will individually develop EPA-approved design and construction documents using separate consultants for the cleanup of their respective sediment areas. During the design and construction processes, the Parties will meet, as necessary, to discuss integration of the cleanup areas in the Transition Zone along the Boundary and shoreline bank interfaces. In developing their respective designs and in implementing their respective cleanups, the Parties will coordinate on dredge depth excavations to ensure required contaminated sediment removals, slope connections and matching grades at the Boundary and shoreline bank interfaces.

Design and implementation features necessary to match the sediment cleanup areas will be coordinated between the Parties and will be finalized in consultation with EPA. The final design and construction documents will be submitted separately but contemporaneously by Boeing and EMJ/Jorgensen to EPA for parallel reviews and approvals.

Bidding Process and Contractor Selection

The Parties anticipate finalizing the bid process mechanisms as part of the design process. Separate contracts will be issued for the sediment cleanup areas on each side of the Boundary; however, the contractor selection process will be coordinated and the request for bids will be submitted contemporaneously. The Parties shall coordinate the contract terms and bid schedule, including payment structure, construction sequencing requirements, compliance with permit conditions, approach to residuals management, and implementation of confirmation sampling requirements. The Parties will make reasonable efforts to select a common contractor, but under separate contracts, to perform the work as single project with separate cost tracking for the Parties' respective cleanup actions.

Permitting Requirements

EMJ/Jorgensen will comply with the substantive requirements of any permits waived under Section 121(e) of CERCLA for its cleanup area. Boeing will secure any necessary permits for its cleanup area. This process will be coordinated, to the extent practicable and feasible, such that compliance activities are performed in an efficient and consistent manner under each applicable statute.

Construction Methods and Controls

During design and the development of construction documents, the Parties shall establish consistency in construction methods and controls that are to be specified in the design process and which are to be performance-based. The methods and controls will be chosen, subject to EPA approval, so as to limit dredge residuals and recontamination due to construction-related activities in either of the Parties respective cleanup areas.

Source Control Implementation

To the extent practicable, or to the extent required by EPA or the Washington Department of Ecology (Ecology) and as authorized by the Parties' respective orders, the Parties will implement source control measures at their respective facilities, subject to EPA approval, prior to commencing implementation activities in the LDW to avoid recontamination of sediments in the LDW. Where source control measures overlap, the Parties will coordinate mitigation measures, as necessary.

Monitoring

The Parties will prepare separate yet integrated construction and long-term monitoring documents (i.e., with shared formats, definitions, schedules, methods, etc.) subject to EPA approval. Accordingly, the Parties will coordinate the Construction Quality Assurance Plan, or its equivalent, for each of their respective cleanup areas to confirm that similar protocols for monitoring contractor performance in the vicinity of the Transition Zone are followed during construction. Each respective plan will identify the methods for communicating necessary design changes and corrective actions identified during construction monitoring of cleanup activities within the vicinity of the Transition Zone with the potential to adversely affect the sediment and/or sediment-bank interface in each sediment cleanup area.

The Parties will coordinate the Operations Maintenance and Monitoring Plan, or its equivalent, for each respective cleanup area for consistency and integration of long-term monitoring objectives as approved by EPA in the Parties' respective EPA Orders in the vicinity of the Transition Zone. To the extent practicable or to the extent required by EPA in the Parties' respective EPA Orders, long-term monitoring of the sediment cleanup located in the vicinity of the Transition Zone will be coordinated on a similar timeline and involve the generation of figures illustrating sampling locations, laboratory analytical data, and applicable field notes collected by either Party.

Public Participation Process

The Parties will coordinate prior to and in the course of any public review periods and community involvement activities.

Agency Participation Process

Shawn Blocker is the EPA Project Manager or Coordinator for both the Boeing RCRA and EMJ/Jorgensen CERCLA sediment cleanups. The Parties agree that coordination of the sediment cleanups is central to the Parties reaching regulatory closure with EPA and Ecology.

Schedule

Detailed schedules for the respective sediment cleanups will be coordinated when the respective EPA approvals occur.

Cleanup Implementation

Cleanup Implementation shall be pursuant to final EPA-approved implementation submission pursuant to the Parties' respective EPA orders, and shall be cooperatively coordinated to the extent practicable, and to the extent required by EPA and the Parties respective EPA Orders.

No Third Party Beneficiaries

This MOU binds and inures to the benefit of only the Parties, and to EPA as an attachment to the Parties respective EPA orders, and does not create any rights for any person or entity other than EPA, Boeing and EMJ/Jorgensen.

Accepted by:

Kirk J. Thomson

Date

THE BOEING COMPANY

E. Gilbert Leon Jr.

Date

EARLE M. JORGENSEN COMPANY

Ron Altier

Date

JORGENSEN FORGE CORPORATION
